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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/319,478 08/18/99 TEETS

J 3419-990811

EXAMINER

QM01/0226

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HAYES, E
ART UNIT PAPER NUMBER

3746
DATE MAILED:

02/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/319,478

Applicant(s)

TEETS ET AL.

Examiner

Eric D. Hayes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-14 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willis et al. (5,685,156) in view of Moore (4,619,588) and further in view of Lopes (5,180,034). Willis et al. (156) teach an annular combustor 14 for a gas turbine engine (though not specifically mentioned, it is well known in the art that gas turbines contain turbine blades, compressor blades, rotor, bearing, and air inlet and exit ports). (Col. 1, lines 8-17). As depicted in Fig. 1, Willis et al. disclose a plurality of magnets and further state that the heat energy from the combustion gases is converted to rotary energy for driving an electric generator. (Col. 1, lines 8-17).

3. Willis et al. (156) disclose the gas turbine assembly described above. Willis et al. fail to disclose a fuel pump in fluid communication with the annular combustor. It is well known in the art to use fuel pumps to provide fuel to the combustor of a gas turbine. Furthermore, Willis et al. fail to disclose using a gerotor fuel pump. Moore (588) teaches a positive-displacement, wet-motor, gerotor fuel pump 10 with a case 12 and housing 18. Moore teaches a gerotor with a substantially smooth flow rate with relatively low energy usage making the gerotor more efficient compared to conventional fuel pumps. (Col. 2, lines 65-70 and Col. 3, lines 1-5). Therefore, it would have been

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obvious to a person of ordinary skill in the art to utilize a gerotor pump to advantageously provide a smooth flow rate at increased efficiency.


4. Willis et al. (156) and Moore (588) teach the gas turbine assembly described above. Willis et al. and Moore fail to disclose a lubricating oil pump in communication with the bearing. Lopes (034) teaches an adaptive lubrication oil system with a lubricating oil pump 40 for a turbine and its bearings. The advantages of oil lubrication are well known in the art. Therefore, it would have been obvious to include an oil lubrication system to reduce friction and overall wear on the turbine bearings.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D. Hayes whose telephone number is (703) 305-3533. The examiner can normally be reached on Monday to Friday from 7:30 a.m. - 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached at (703) 308-0102. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3588 for regular communications and (703) 305-3588 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

Eric D. Hayes
Examiner
Art Unit 3746


edh

February 22, 2001


Timothy S. Thorpe
Supervisory Patent Examiner
Group 3700